

Date: Thu, 3 Mar 94 18:40:12 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #231  
To: Info-Hams

Info-Hams Digest                      Thu, 3 Mar 94                      Volume 94 : Issue 231

Today's Topics:

A transmission line loss question  
    Body Parts by J. Herman  
    Buckmaster and Packetcluster  
Medium range point-to-point digital links  
    Mobile Phone  
    speed traps  
    test  
    The QRZ CD - it's great!  
Transformer Failure Modes? (2 msgs)  
    Yaesu 2400H recs

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 3 Mar 1994 18:15:13 GMT  
From: news.acns.nwu.edu!math.ohio-state.edu!sdd.hp.com!hpscit.sc.hp.com!  
rkarlqu@network.ucsd.edu  
Subject: A transmission line loss question  
To: info-hams@ucsd.edu

In article <64660001@hpcss01.cup.hp.com>,  
Mark Butterworth <markb@hpcss01.cup.hp.com> wrote:  
>Cut the cable to the shortest length. That will reduce the loss the most.  
>There is no reason to have the transmission line any particular length.  
>This is an old wives tale.

Well, in general, it's an old wives tale, but in the specific case

of using 75 ohm line to connect a 50 ohm load to a 50 ohm source,  
you get minimum mismatch loss with multiples of a half wavelength,  
so it is true for that unusual situation.

Rick Karlquist, N6RK  
rkarlqu@scd.hp.com

-----  
Date: Wed, 2 Mar 1994 15:58:18 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!asuvax!pitstop.mcd.mot.com!mcdphx!schbbs!  
waters.corp.mot.com.corp.mot.com!user@network.ucsd.edu  
Subject: Body Parts by J. Herman  
To: info-hams@ucsd.edu

In article <762544765snx@skyld.grendel.com>, jangus@skyld.grendel.com  
(Jeffrey D. Angus) wrote:

>  
> Waiting now for the headlines in the LA Times, Dateline Hawaii:  
>  
> "Deranged Professor detonates 5 pounds of plastic explosive in mens  
> room on campus. Police sifting through wreckage are puzzled by the  
> large quantity of black basket weave material. Several used condoms  
> and a radio were also found at the blast site."

Best laugh I have had in weeks!

To bad it is essentially an "inside" joke for readers of  
rec.amateur.radio.xxx

Thank you!

--

Phooey on it all - I'm going sailing for a year or two!!!

-----  
Date: 4 Mar 94 01:55:15 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Buckmaster and Packetcluster  
To: info-hams@ucsd.edu

the packetcluster node i use is having problems with the buckmaster  
online callbook. it won't give any nxxx calls. it says "not found".  
even for calls i know are good. it used to work fine.after an update  
this started. the sysop has tried everything he can think of. called the  
author of packetcluster,etc. this is not the cd-rom, it comes on manny  
floppies and is on the hard drive. this happens with any "n" call,

1x2,1x3,2x1. anyone with a similar problem or ideas please contact me.

dan  
n9hfr@pgd.adp.wisc.edu

-----  
Date: 4 Mar 1994 01:36:49 GMT  
From: nothing.ucsd.edu!brian@network.ucsd.edu  
Subject: Medium range point-to-point digital links  
To: info-hams@ucsd.edu

All I want to do is build a ham radio digital link between San Diego and Los Angeles that will get data there faster and cheaper than me driving.

I don't think I'll live long enough to see it happen.  
- Brian

-----  
Date: Wed, 02 Mar 1994 11:31:50 -0500  
From: ihnp4.ucsd.edu!sdd.hp.com!vixen.cso.uiuc.edu!howland.reston.ans.net!math.ohio-state.edu!news.acns.nwu.edu!ftpbox!mothost!lmpsbbs!NewsWatcher!user@network.ucsd.edu  
Subject: Mobile Phone  
To: info-hams@ucsd.edu

In article <1994Mar2.051508.25139@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary Coffman) wrote:

> In article <1994Mar2.003533.10017@mnemosyne.cs.du.edu> wnelson@nyx10.cs.du.edu (W. Robert Nelson) writes:  
> >I am looking for a way to make phone calls from my car through my own phone  
> >line, not a cellular service. I have heard a little about 'autopatches', but  
> >have some questions.  
> >  
> Unnecessary stuff deleted for brevity  
> >  
> >4 - Could it be done with a CB? Would it be legal? What is the range?  
>  
> I've heard simpatches being used on CB (Hell, I've heard all sorts of  
> things on CB). I'm not sure whether such an interconnect is legal in  
> the CB service. Part 95 doesn't say, but it may fall under the same  
> common carrier restrictions as other telco bypass schemes. Simpatches  
> are legal in certain \*commercially\* licensed services. That would be  
> your best course if you \*must\* interconnect to the telco system via  
> your home line. Otherwise, an IMTS or cellular phone is your best  
> alternative.

>

Actually Part 95 \*does\* address (and forbid) the use of any telephone interconnection to the phone lines for Class D stations. Check 95.420 (CB Rule 20) for details and specific wording. The sad part is that, as Gary mentions, almost anything goes on 27 MHz these days.

BTW, interconnect is also prohibited on GMRS (aka Class A CB) in section 95.141 with the exception of control circuits as detailed in 95.127. I vote for the "real" car phone as the best choice.

Gary, keep up the good work of "Elmering via Usenet" and if they ever ask me for nominations for Chief of same, your name will be first up.

> Gary

> --

> Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
> Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
> 534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
> Lawrenceville, GA 30244				

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Karl Beckman, P.E. < STUPIDITY is an elemental force for which >  
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!  
Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

-----  
Date: 3 Mar 1994 02:06:53 GMT  
From: ihnp4.ucsd.edu!mvb.saic.com!news.cerf.net!usc!cs.utexas.edu!  
gerald@cc.utexas.edu!pan.as.utexas.edu!oo7@network.ucsd.edu  
Subject: speed traps  
To: info-hams@ucsd.edu

dc@panix.com (David W. Crawford) asks:

>>I plan on travelling from Madison Wisconsin to Kalamazoo Michigan  
>>in a couple of weeks. My route is going to be I-90 to Chicago (via  
>>Rockford), and then I-94 to Kalamazoo (via Gary). Any speedtraps,  
>>2m repeater, etc. that you can alert me to would be appreciated...

Hey, good buddy, doncha got your ears on?  
Just go at 90 mph, you'll find them - is that a Roger?

Derek "try 55" Wills (AA5BT, G3NMX)  
Astronomy Dept, Univ. of Texas  
oo7@pan.astro.utexas.edu

--

-----  
Date: Wed, 2 Mar 1994 23:37:14 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!gatech!swrinde!  
cs.utexas.edu!oakhill!victorc@network.ucsd.edu  
Subject: test  
To: info-hams@ucsd.edu

test

-----  
Date: Wed, 2 Mar 1994 20:58:43 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!ulowell!wang!  
dbushong@network.ucsd.edu  
Subject: The QRZ CD - it's great!  
To: info-hams@ucsd.edu

I received my QRZ CD today and played with it a little. I'm posting  
this just to let everyone know that it's for real, and it works as  
advertised.

The callsign data is current as of about October, 1993. There is an  
ASCII file that contains all of the data (about 60 Meg) in case you  
want to write your own interface to access the data (e.g., a logging  
program, QSL card mailer, or something like that). There is also some  
source code which illustrates how you might do this.

--

Dave Bushong, Wang Laboratories, Inc.

-----  
Date: Thu, 3 Mar 1994 02:34:45 GMT  
From: ihnp4.ucsd.edu!sdd.hp.com!col.hp.com!srngenprp!alanb@network.ucsd.edu  
Subject: Transformer Failure Modes?  
To: info-hams@ucsd.edu

Karl Beckman (CSLE87) wrote:  
: In article <CLyA9E.Bzx@srngenprp.sr.hp.com>, alanb@sr.hp.com (Alan Bloom)

: wrote:

: > Mark E. Bailey (mebly@eng.umd.edu) wrote:  
: > : The proverbial friend of mine has two transformers. They are 110/220 VAC  
: > : input, 50 VAC output and rated at 15 amps.  
: >  
: > : He needs 25 volts, not 50. The obvious solution is to feed 110 into the  
: > : 220 input windings.  
: >  
: > : Question: Do we have to de-rate the output current to 7.5 amps?  
: >  
: > For a given secondary current, when you halve the primary voltage  
: > (to 110V), the input current doubles.

Well, even genius HP engineers blow it sometimes :=) I realized as soon as I posted the above that I had answered a totally different question than was asked, but was not able to kill the posting before it went out. I was thinking of the case where you apply the 110 volts to HALF the input winding, so the output voltage is the same, and the input current is doubled.

I only had one email reply calling me on it. Come on, gang, is nobody reading my postings? :=)

To answer the original question, it would work fine to run the transformer at 1/2 the rated voltage. You would be able to get at least as much output current (at 1/2 the voltage). The transformer would run nice and cool, since it is only handling 1/2 the power.

AL N1AL

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Date: Wed, 02 Mar 1994 11:03:40 -0500  
From: ihnp4.ucsd.edu!sdd.hp.com!vixen.cso.uiuc.edu!howland.reston.ans.net!  
math.ohio-state.edu!news.acns.nwu.edu!ftpbox!mothost!lmpsbbs!NewsWatcher!  
user@network.ucsd.edu  
Subject: Transformer Failure Modes?  
To: info-hams@ucsd.edu

In article <CLyA9E.Bzx@srngenprp.sr.hp.com>, alanb@sr.hp.com (Alan Bloom)  
wrote:

> Mark E. Bailey (mebly@eng.umd.edu) wrote:  
> : The proverbial friend of mine has two transformers. They are 110/220 VAC  
> : input, 50 VAC output and rated at 15 amps.  
>  
> : He needs 25 volts, not 50. The obvious solution is to feed 110 into the

> : 220 input windings.  
>  
> : Question: Do we have to de-rate the output current to 7.5 amps?  
>  
> For a given secondary current, when you halve the primary voltage  
> (to 110V), the input current doubles. So theoretically, if you want  
> to keep the primary current the same, you would have to reduce the  
> output current rating by 1/2.  
>  
> However, I don't think it's quite that bad. After all, the secondary  
> current is the same -- the only difference is the  $I^2 \cdot R$  loss in the

And here is the problem! Since R stayed the same and I is doubled, the  $I^2 \cdot R$  loss is FOUR times what it was previously. The transformer must now dissipate much more heat than it was designed for. Just put both transformers in parallel (phased properly, of course) to get back to the full 15 amperes, 7.5 from each core.

> primary. Also, most transformers are rated for 100% duty factor.  
> If you are using this to make a 12V power supply for a transmitter  
> with a 50% duty factor, you could probably use the full 15A or even  
> a bit more.

Nothing from the original questioner said anything about operating at a reduced duty cycle, but if you want to gamble at 25%, go ahead. Copper heats up rather quickly, and the steel core does not carry away the heat very well, so wear hot-mitts if you need to work on the chassis.

>  
> AL N1AL

--  
Karl Beckman, P.E. < STUPIDITY is an elemental force for which >  
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!  
Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

-----  
Date: Wed, 02 Mar 1994 23:30:29 GMT  
From: hobbes!stevenbl@uunet.uu.net  
Subject: Yaesu 2400H recs  
To: info-hams@ucsd.edu

In article <9402270310.AA21723@jumbo.Read.TASC.COM> racuti@tasc.com writes:

>Hi,  
>  
> I would appreciate feedback from those who have  
> the 2400 as to what they like or dislike about the  
> rig. I'm also open to any other suggestions on the  
> choice of a 2M mobile rig. Thanks.  
>  
> -- Rich N1QVT  
>| Richard A. Cuti Voice: 617-942-2000 x3309 |  
>| TASC Internet: racuti@tasc.com |  
>| 55 Walkers Brook Drive Compu\$erve: 76170,420 |  
>| Reading, MA 01867 Amateur Radio: N1QVT |  
>|  
>| (Opinions are strictly those of me, myself and I) |  
>+-----+  
>

The 2400 has been a great. I've run it 2 years mobile and no problems.

-----  
Date: Wed, 2 Mar 1994 20:19:27 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!gatech!swrinde!  
sgiblab!wetware!spunky.RedBrick.COM!psinnntp!psinnntp!arrl.org!zlau@network.ucsd.edu  
To: info-hams@ucsd.edu

References <1994Feb24.232513.11504@arrl.org>, <CLy9Jv.BI9@srgenprp.sr.hp.com>,  
<1994Mar2.091413.18768@ee.surrey.ac.uk>nky.R  
Subject : Re: Low power Bird slugs

Mike Willis (M.Willis@ee.surrey.ac.uk) wrote:

: Not quite Al, you can get lower power HF slugs but  
they have severly restricted  
: bandwidth, close coupling is required and the response suffers.

So why wouldn't Bird sell us a set? We were succesful in  
getting other custom slugs for our Bird 43s.

The lowest power HF slugs are the 25-60 MHz 5 watt slug  
and the 50 watt 2-30 MHz slug.

: The onl HF slug I have is 500W 2-30 MHz. I think that  
is the lowest power available  
: to cover the whole band

--  
Zack Lau KH6CP/1 2 way QRP WAS



8 States on 10 GHz  
Internet: zlau@arrl.org 10 grids on 2304 MHz

-----  
Date: 2 Mar 1994 18:25:52 -0600  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!gatech!udel!  
news.sprintlink.net!bga.com!bga.com!nobody@network.ucsd.edu  
To: info-hams@ucsd.edu

References <CL2IGA.1z8@world.std.com>, <CL2uBt.8qr@srgenprp.sr.hp.com>,  
<CLwrFv.M1o@odin.corp.sgi.com>print  
Subject : Re: Copying High-Speed CW: Print or Script?

AAARRRRRGH!!!!

Now why, pray tell, would someone want to write down cw at hi speed?!?!?!?  
Yeah, OK, write down call, QTH, signal report, blah blah for the log if  
you must, but \*why\* do people insist on copying on paper?! Why why why?!

:) Head copy is:

- 1) Fast. No middle step. Just copy and go on and copy more!
- 2) Environmentally conscious! (Like I care, but anyway...) Yep, one less tree to kill.
3. Natural! (Well, if you like cw anyway...) Sit back and enjoy it!
- 4) Convenient! No more hunting for a pen and paper to scribble on...

Head copy! Is it a lost ... h'mm. Well, do people head copy anymore?  
Besides me, I mean?

--  
Buddy Brannan, KB5ELV | God is love.  
Riff-Raff #4 | Love is blind.  
Internet: davros@bga.com | Buddy is blind.  
davros@ccwf.cc.utexas.edu | Buddy is God.

-----  
Date: 2 Mar 1994 18:51:35 -0500  
From: ihnp4.ucsd.edu!sdd.hp.com!hpscit.sc.hp.com!hpuerca.atl.hp.com!hpuerca!  
edh@network.ucsd.edu  
To: info-hams@ucsd.edu

References <ah301-010394145634@sy\_j.pgh.wec.com>,  
<1994Mar2.070107.25919@ke4zv.atl.ga.us>, <1994Mar2.144907.26098@bongo.tele.com>  
Subject : Re: JARGON

In <1994Mar2.144907.26098@bongo.tele.com> julian@bongo.tele.com (Julian Macassey)  
writes:

>A skilled ham  
>communicator can spin a simple event out so that the description of it  
>takes three times longer than the duration of the actual event.

I don't know about 3x, but every since my wife became a ham, she  
has taken to giving me a 45 minute summary of 30 minute TV shows  
that I didn't want to watch, much less hear about :-)

Cheers &73 Ed-N5RCK  
HP Atlanta GA

-----  
Date: Wed, 02 Mar 1994 10:31:10 -0500  
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!math.ohio-state.edu!  
news.acns.nwu.edu!ftpbox!mothost!lmpsbbbs!NewsWatcher!user@network.ucsd.edu  
To: info-hams@ucsd.edu

References <rcrw90-250294135425@waters.corp.mot.com.corp.mot.com>,  
<1994Feb27.133807.12203@ke4zv.atl.ga.us>,  
<rcrw90-280294091343@waters.corp.mot.com.corp.mot.com>  
Subject : Re: On-line Repeater Directory

In article <rcrw90-280294091343@waters.corp.mot.com.corp.mot.com>,  
rcrw90@email.mot.com (Mike Waters) wrote:

> In article <1994Feb27.133807.12203@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us  
> (Gary Coffman) wrote:  
>  
> > In article <rcrw90-250294135425@waters.corp.mot.com.corp.mot.com>  
rcrw90@email.mot.com (Mike Waters) writes:  
> > >  
> > >In other words "we have to make money off it" is a perfectly valid reason,  
> > >especially considering the man-years of effort that went into creating the  
> > >publication in the first place!  
>  
> > Now like I said, I don't mind the League trying to turn a buck, but  
> > they've sure got a lot of gall making lawyer noises to Yee claiming  
> > he's ripping them off when \*they\* are ripping off the efforts of the  
> > coordinating bodies.  
>  
> (1) I sure would like to see a copy of the original letter making "lawyer  
> noises".

This has been addressed by fax from the receiver to specific requestors.

> (2) I wonder how many quadrillions of dollars the Lagues \*actually\* makes  
> of this particular publication?

Which would make the issue of monetary damages moot, especially since ARRL has not previously defended their claimed (but untenable) claim of copyright against others who print maps, lists, etc.

>

> (3) Gathering and supplying the data is certainly part of the effort, but  
> by no means all the effort that goes into compiling such a list and getting  
> it published.

No, but it is a critical part, and some of the coordinators have (wisely) placed restrictions of the dissemination of that data, which the ARRL seems

not to acknowledge either literally, in their publication, or in the practice of inhibiting others who also have the same access to the facts.

> (4) Did you ever stop to think that there may even be some \*other\* reason  
> for objecting to misuses of copyright? Like if you let one person abuse  
> your copyright then others will try and maybe get away with it on that  
> basis? I can certainly think of some crazies who would gladly abuse ARRL  
> publications for their own purposes, both to make money and to just make  
> an nuisance of themselves - we have a few examples who post to these  
> newsgroups for example.

There is also the point that the ARRL may themselves be abusing the copyright process and harrassing other publishers. In fact, if a pattern were found, the League could be charged with anti-trust violations and the membership could potentially be charged individually with conspiracy and tried under the RICO statutes. Heavy stuff - is it worth the bad PR to amateur radio in general and the costs to ARRL in particular??

The real issue is whether a valid claim of copyright exists at all. The previous recent legal precedent says that there can be no valid copyright granted to ownership of the facts, merely the presentation of them (in the specific ARRL case, in PRINTED form). Therefore the presentation of a larger set of data, similar in form (and in a totally different media) is

not subject to copyright protection. Just because Encyclopaedia Britannica copyrights their encyclopaedia does not mean that they have sole ownership of the facts presented therein. They own their presentation only.

>

> (I'm not a lawyer so this is not a legal opinion :-)

Likewise, but experience tells me that if the phone companies with all

their legal resources LOST the US District Curt case protecting their claimed copyright of the contents of a telephone directory, the League stands precious little chance of winning, much less recouping the legal costs from the sale of their version of a repeater directory.

What do you think, Gary and Mike? If someone should file charges based on the RICO aspect, does anyone win other than the lawyers? And will ARRL dues go up once again to pay for this folly?

--

Karl Beckman, P.E. < STUPIDITY is an elemental force for which >  
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!  
Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

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Date: Thu, 3 Mar 1994 02:44:50 GMT  
From: ihnp4.ucsd.edu!agate!library.ucla.edu!news.ucdavis.edu!chip.ucdavis.edu!  
ez006683@network.ucsd.edu  
To: info-hams@ucsd.edu

References <1994Feb27.133807.12203@ke4zv.atl.ga.us>,  
<rcrw90-280294091343@waters.corp.mot.com.corp.mot.com>,  
<CSLE87-020394103111@145.39.1.10>  
Subject : Re: On-line Repeater Directory

Karl Beckman (CSLE87) wrote:

: There is also the point that the ARRL may themselves be abusing the  
: copyright process and harrassing other publishers. In fact, if a pattern  
: were found,  
: the League could be charged with anti-trust violations and the membership  
: could potentially be charged individually with conspiracy and tried under  
: the RICO statutes. Heavy stuff - is it worth the bad PR to amateur radio in

Do you really think that League members could be tried under the RICO statutes? I hope this is hyperbole and not stupidity. Even in the most recent misuse of RICO, ie. Operation Rescue, I have heard of no member who didn't actively violate the rights of others by participating in blockades being prosecuted. The prosecution would, if anything, be against the League itself that is the purpose of incorporation.

: general and the costs to ARRL in particular??

The arguement about bad PR and such is a much better argument and I personally think there will be an on-line directory with or without the

Leagues cooperation. But you can't expect them to not protect their copyrights to the best of their abilities.

: The real issue is whether a valid claim of copyright exists at all. The previous recent legal precedent says that there can be no valid copyright granted to ownership of the facts, merely the presentation of them (in the specific ARRL case, in PRINTED form). Therefore the presentation of a larger set of data, similar in form (and in a totally different media) is not subject to copyright protection. Just because Encyclopaedia Britannica copyrights their encyclopaedia does not mean that they have sole ownership of the facts presented therein. They own \_their\_ \_presentation\_ only. Yeah sure, according to your intepretation I could just digitize the EB and make it available on CD and there isn't a damn thing they could do about it. If this still seems like an acceptable interpretation to you please explain how?

: > (I'm not a lawyer so this is not a legal opinion :-)

: Likewise, but experience tells me that if the phone companies with all their legal resources LOST the US District Curt case protecting their claimed copyright of the contents of a telephone directory, the League stands precious little chance of winning, much less recouping the legal costs from the sale of their version of a repeater directory.

One more time, the league is not saying you can't duplicate the work they have done in the directory, the facts are the facts. You cannot copy the data directly off of their publication without permission.

: What do you think, Gary and Mike? If someone should file charges based on the RICO aspect, does anyone win other than the lawyers? And will ARRL dues go up once again to pay for this folly?

Gary thinks that RICO is a violation of basic civil rights and as such should not be brought to bear against anybody because you could prosecute under other existing laws based upon actions rather than intent nad if we let the government (RICO is a criminal recourse) get their foot in the door we could end up with Janet and the ATF in Newington if we aren't careful.

Mike thinks that's just what the ARRL needs, to be torched by Janet et. al.

Note The preceeding paragraphs regarding Gary and Mike are in jest and please infer smileys wherever applicable. If I won't speak for the U. why would I speak for them?

cheers,

Dan (I hope Gary and Mike have a good sense of humor) Todd

--

```
*-----*
* Daniel D. Todd      Packet: KC6UUD@KE6LW.#nocal.ca.usa      *
*                    Internet: ddtodd@ucdavis.edu              *
*                    Snail Mail: 1750 Hanover #102              *
*                    Davis CA 95616                            *
*-----*
* All opinions expressed herein are completely fictitious any  *
* resemblance to actual opinions of persons living or dead is  *
* completely coincidental.                                     *
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End of Info-Hams Digest V94 #231

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